AMENDMENTS TO THE DRAWINGS

Figures 1, 2 and 15 have been amended to have the signal acquisition component recited in the claims to be the signal acquisition component (9).

Figure 22 has been added to show the communication device/integrated circuit that includes a W-CDMA transmitter, a W-CDMA receiver and a processor in data communication with the W-CDMA transmitter and the W-CDMA receiver as requested by the Examiner. Figure 22 consolidates aspects shown at least in Figures 1, 2, 8 and 15.

REMARKS

This paper amends the specification, drawings and Claims 1, 8, 30, 31 and 34. Claims 2-7, 9-29 and 32 are unchanged. Claims 1-32 and 34 are pending. Reconsideration and allowance of the claims is respectfully requested. The amendment of Claims 1, 8, 30 and 34 is not narrowing and is not made to avoid any prior art.

Discussion of the Amendments to the Specification

The amendments on pages 7, 8, 14, 15 and 22 are to conform the specification to the amendments of the drawings as requested by the Examiner and to describe Figure 22. Support for these revisions can at least be found in Figures 1, 2, 8 and 15 and the original claims.

Discussion of the Objections and Amendments to the Drawings

The drawings have been objected to under 37 CFR 1.83(a) for not showing every feature of the invention specified in the claims.

Applicant respectfully submits that the W-CDMA transmitter is shown in Figure 1, the W-CDMA receiver is shown in Figure 8, the signal acquisition component (acquisition unit) is shown in Figure 1, and the processor in data communication with the transmitter, the receiver and the signal acquisition component are shown in Figures 1 and 8. However, in response to the objection by the Examiner, Figure 22 has been added to show the communication device/integrated circuit that includes a W-CDMA transmitter, a W-CDMA receiver and a processor in data communication with the W-CDMA transmitter and the W-CDMA receiver. Figure 22 consolidates aspects shown at least in Figures 1, 2, 8 and 15.

The Examiner states that the figures do not disclose a second RAM. The RAM shown in Figure 3 is an example of RAM that can be configured as the first RAM and the second RAM. A RAM used in the transmitter is considered to be the first RAM, and a RAM used in the receiver is considered to be the second RAM as shown in Figure 22.

The Examiner states that the figures do not disclose how RAM and registers are connected. Applicant respectfully submits that the claims do not recite connecting the RAM and registers and it is unnecessary to show this feature. However, the registers could be part of the RAM, or the registers could be separate storage elements apart from the RAM, such as shown in

Figure 3. In one embodiment, the first registers can include the start (25), stop (27) and step (29) inputs shown in Figure 3 and described on page 9 of the specification, where these registers are used to address the RAM.

Figures 1, 8 and 22 show how the processor interacts with the transmitter, signal acquisition component and receiver. The processor provides the first parameters to the transmitter and the second parameters to the receiver to be stored in the respective first RAM and/or first registers, and second RAM and/or second registers. These parameters configure the operation of the respective transmitter and receiver.

The drawings have been objected to under 37 CFR 1.84(p)(4). Figures 1, 2 and 15 have been amended to consistently name the signal acquisition component.

Discussion of the Rejection of Claims under 35 U.S.C. § 112, 2nd ¶

Claims 1-32 and 34 have been rejected under 35 U.S.C. § 112, 2nd ¶ as being indefinite for failing to point out and distinctly claim the subject matter which Applicant regards as the invention.

With regards to Claims 1, 30, 31 and 34, the Examiner requests an explanation of the first and second parameters. The first and second parameters are values stored in the first RAM and/or first registers and the second RAM and/or second registers that are used to respectively configure the transmitter and receiver for operation. For example, PN-codes are first and second parameters that can be stored in the first RAM and second RAM (see Figures 3-7). As another example, first parameters are stored in registers that are used to configure the spreader (see page 8 of the specification). A yet another example, second parameters are stored in registers that are used to configure the level control and the noise estimator/reference demodulator (see pages 14-15 of the specification).

With regards to Claims 1, 30, 31 and 34, the Examiner requests an explanation of how the first and second RAMs work together. Claims 1, 30, 31 and 34 do not recite that the first and second RAMs work together. The first RAM is part of the transmitter and the second RAM is part of the receiver, and do not need to operate together.

With regards to Claims 8 and 34, the Examiner states that it is unclear what is QPN. Claims 8 and 34 have been amended to expand the abbreviation as requested by the Examiner so as to conform with the expanded abbreviation provided on page 7 of the specification.

Discussion of the Rejection of Claims under 35 U.S.C. § 103(a)

Claims 1, 30 and 31 have been rejected under 35 U.S.C. § 103(a) as being obvious over Miller (U.S. Patent No. 5,511,067) in view of Johnson (U.S. Patent No. 5,675,609).

Applicant's Claim 1 (and similarly in Claim 30) recites in part: "a W-CDMA transmitter comprising at least one of a first RAM and first registers arranged to store first parameters so as to configure the transmitter's operation" and "a W-CDMA receiver comprising at least one of a second RAM and second registers arranged to store second parameters so as to configure the receiver's operation".

The Miller reference does not disclose a first and second RAM and first and second registers to configure the transmitter and receiver, respectively. In certain embodiments of Applicant's system, the first RAM and registers are used for storing the PN codes, as well as the parameters in the dashed blocks in Fig. 2, for example. The second RAM and registers are used for storing parameters in the dashed boxes as in Figs. 9 -10, for example. RXSHIFT and RXMULT are discussed in last paragraph on page 14 of the specification, and NC_length is shown in Fig. 10 and described on page 15, for example. Hence, the RAMs and registers claimed by Applicant allow for extensive reconfigurability, which is not at all suggested in the teaching of Miller.

The Examiner admits that Miller does not disclose a "transmitter and receiver comprising at least one of a first RAM and first register and comprising at least one of a second RAM and second registers, respectively", for which the Johnson reference is cited. When considering Johnson, the skilled person, however, would find that the RAM and registers are used as *data buffers* (see Fig. 8 of Johnson). The role of RAM and registers in Johnson is to propagate signals between segments of a transmitter or a receiver, in order to maximize transmission efficiency. In other words, Johnson uses the memory elements in the traditional sense, i.e.: for holding a software program (element 100 in Fig.8); for buffering data (element 92 in Fig. 8, element 76 in Fig. 7); and for doing some selections (switches) (element 86 in Fig. 8).

As previously explained above, in Applicant's system, the RAM and registers are used to contain *parameters* for the transmitter and the receiver. The advantage of using the RAM and registers for parameter storage is that one obtains flexible circuits capable of handling many different types of CDMA-like waveforms. The skilled person would not find any indication in Johnson to use RAM or registers in the way claimed by Applicant.

Furthermore, Applicant respectfully submits that the Examiner may have been misled by an erroneous arrow on signal line (83) in Figure 8 of the Johnson reference. Both signal lines (82) and (83) are actually inputs to the RAM (92) as described in the specification at three occasions at column 8, lines 29-59 in Johnson. Figures 2-8 show a transmitter, and therefore, the cited text and Figure 8 do not show a W-CDMA receiver having a second RAM and second registers.

Applicant's Claim 1 (and similarly in Claim 30) recites in part: "a processor in data communication with the W-CDMA transmitter, the W-CDMA receiver and the signal acquisition component". Applicant respectfully submits that Miller does not disclose a signal acquisition component in data communication with the processor. Miller does not describe that the antennas at the base station in Fig.1 of Miller are in data communication with the processor. The modem processor (60) is shown to receive input from a control (44) and interface with a modem ASIC (62) as shown in Miller's FIG. 3. System controller and switch (11) is a mobile telephone switching office that interfaces the base station with the rest of the telecommunications network (10). There is no description that the modem processor (60) or the system controller and switch (11) are in data communication with the antennas.

The above arguments similarly apply to amended Claims 30 and 31.

Dependent Claims

Claims 2-29 and 32 are dependent either directly or indirectly on the above-discussed independent claims. Applicant respectfully submits that pursuant to 35 U.S.C. § 112, ¶4, the dependent claims incorporate by reference all the limitations of the claim to which they refer and include their own patentable features, and are therefore in condition for allowance. Therefore, Applicant respectfully requests the withdrawal of all claim rejections and prompt allowance of the claims.

Conclusion

In view of the foregoing remarks, Applicant respectfully submits that the claims of the above-identified application are in condition for allowance. However, if the Examiner finds any impediment to allowing all claims that can be resolved by telephone, the Examiner is respectfully requested to call the undersigned.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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Dated: _May 30, 2006_   By: _____

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